Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-16.   (Cancelled)

Claim 17. (New)   An image-processing camera system for a vehicle, comprising:

an optical system having a lens, a diaphragm, and an image pickup element, and being mounted on the vehicle;

an optical system controller which is mounted on the vehicle and controls the optical system;

a first application program which uses image data acquired by the optical system according to a first set of camera parameters, and at a first image data acquisition rate, and performs first image processing for influencing driving of the vehicle;

at least a second application program which uses image data acquired by the optical system according to a second set of camera parameters, and at a second image data acquisition rate, and performs second image processing for influencing driving of the vehicle;

memory for storing information i) for scheduling acquisition of the image data from the optical system, repeatedly without overlapping in time, in a manner that is consistent with the first and second image data acquisition rates and the first and second sets of camera parameters, respectively, in order to provide the image data used by the first and second application programs, and ii) for scheduling execution of processing of the first and second application programs in coordination with said acquisition of image data;

an application scheduler which generates instructions that provide a schedule for acquiring the image data and for executing processing of the first and second application programs, based on the stored information, according to progress of time; and

an image pickup element controller which sets up the optical system controller based on the first and second sets of camera parameters of the first and second application programs, responding to the instructions from the application scheduler; wherein,

the setting up of the optical system controller and the acquiring of the image data from the optical system are repeated according to the schedule, based on progress of time; and

processing of the first and second application programs are performed according to the schedule using the acquired image data.

Claim 18.　(New)　The image-processing camera system for a vehicle according to Claim 17, wherein:

said schedule information includes image data volumes and image data acquisition rates necessary in the first and second application programs; and

means are provided for judging whether the first and second application programs can be performed concurrently, based on the image data volumes and image data acquisition rates.

Claim 19.　(New)　The image-processing camera system for a vehicle according to Claim 17, further comprising:

application program group storage means for storing application program groups, each of which comprises a combination of concurrently executable application programs using image data received from the image pickup device; and

an application program selection means which reads out data on the concurrently executable application programs from the application program group storage means, and selects the concurrently executable application programs.

Claim 20.   (New)   The image-processing camera system for a vehicle according to Claim 17, further comprising:

a plurality of basic image-processing modules, each for controlling the image pickup element to execute a plurality of application programs; and

means which determines plural application programs to be executed concurrently using the image data acquired from the image pickup device, based on functional matching levels of the basic image-processing functions.

Claim 21.   (New)   The image-processing camera system for a vehicle according to Claim 19, further comprising:

means which, during execution of an application program, selects any other executable application program based on the fact that the latter application program belongs to the same application program group as that of the application program being executed.

Claim 22.   (New)   The image-processing camera system for a vehicle according to Claim 17, further comprising:

means which, during execution of an application program, selects any other executable application program based on a functional matching level of a necessary basic image-processing function with respect to an application program that is being executed.

Claim 23.   (New)   The image-processing camera system for a vehicle according to Claim 17, further comprising:

means operable during execution of an application program, for selecting a further application program as an executable application program, depending on whether image data required for the further application program can be acquired from the image pickup device during an interval within a period of image data acquisition from the image pickup device by the application program that is being executed.

Claim 24.   (New)   The image-processing camera system for a vehicle according to Claim 17, wherein:

one cycle of the stored schedule is a continuation of a plurality of frames of predetermined time width;

the image data acquisition and the image-processing of the first and second application programs are assigned to the frames corresponding to the first and second image data acquisition rates; and

setting of the optical system controller, image data acquisition by the optical system, and processing of the first and second application programs are performed repeatedly, based on the progress of time, according to an assignment of frames as provided in the schedule.

Claim 25.   (New)   The image-processing camera system for a vehicle according to Claim 17, wherein:

the first image data acquisition rate is greater than the second rate;

one cycle of the schedule includes a sequence of a plurality of frames;

the acquiring of image data and processing in the first application program are assigned to two different time points in the plurality of frames which constitute said one cycle of the schedule;

the acquiring the image data and processing in the second application program are assigned to a single time point in the plurality of frames which constitute said one cycle of the schedule; and

according to the assignment to frames of the schedule, based on progress of time, the first application program executes twice during said one cycle, a setup of the optical system controller and the image-processing of the image data acquired from the optical system, and the second application program executes once during said one cycle, the setup of the optical system controller and the image-processing of the image data acquired from the optical system.